1327, Ap 4, Appli 5, Appli 2, Appli 12, Appli 12, Appl 2, Appli 2, Appli 2, Appli

, Appl

Appli Appli Appli Appli Appli

OM nucleic

Run on:

Sequence:

```
642 AGTTGTGCTAATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATAT 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 46, Application US/09058489

Sequence 46, Application US/09058489

Sequence 46, Application US/09058489

Sequence 46, Application US/09058489

SERENT NO. 6103886

APPLICANT: Babn, Bruce

APPLICANT: Lahn, Bruce

APPLICANT: Genes, David

ITILE OF INVENTION: the Y Chromosome

TITLE OF INVENTION: the Y Chromosome

TITLE OF INVENTION: the Y Chromosome

CURRENT APPLICATION NUMBER: US/09/058,489

CURRENT APPLICATION NUMBER: 60/041,877

EARLIER APPLICATION NUMBER: 60/041,877

SAFLIER PILING DATE: 1997-04-11

NUMBER OF SEQ ID NOS: 91

SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 SerileAlaAspAspilePheProLeuileSer-CysValGlyAlaIleHisCysAsnil 25
                                                                                Sequence
Sequence
Sequence
                                                                                                                                              Sequence 1
Sequence 1
Sequence 1
                                                                                                                                                                                                                                  Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                              Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
Sequence
                 Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                              Sequence
                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129
446
129
120
120
                                                     US-08-706-281A-18

US-09-097-231-18

US-08-671-525B-10

US-08-671-525B-10

US-08-672-109B-10

US-08-672-245-10

US-08-672-245-10

US-08-134-001C-4352

US-09-134-001C-4352

US-09-134-001C-327

US-09-136-98B-4

US-09-136-98B-4

US-09-136-98B-4

US-09-136-98B-4

US-09-245-041-2

US-09-245-041-2

US-08-415-818-12

US-08-415-818-12

US-08-415-818-12

US-08-415-943A-2

US-08-467-947A-2

US-08-134-001C-3507

US-09-134-001C-3507

US-09-546-117-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-768-781-2 (1-1389) x US-09-058-489-46 (1-129)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT-US94-00198-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCT-US93-08528-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-118-270-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169.00
56.82%
34.85%
6.65%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-058-489-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-058-489-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.:
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5655, Ap
Sequence 4893, Ap
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5576, Appli
Sequence 6576, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 46, Appl
                                                                                                                                     April 1, 2003, 08:51:06; Search time 23.5 Seconds (without alignments) 3478.165 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                          1 atgaacacaagaccacaaca...........caaggcaaagtgttgtctga 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6
Sequence 4
Sequence 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .ued_Patents_AA:*
   /cgn2 { ptodata1/iaa/5A_COMB.pep:*
   /cgn2 { ptodata1/iaa/5B_COMB.pep:*
   /cgn2 { ptodata1/iaa/6B_COMB.pep:*
   /cgn2 { ptodata1/iaa/6B_COMB.pep:*
   /cgn2 { ptodata1/iaa/6B_COMB.pep:*
   /cgn2 { ptodata1/iaa/PCTUS_COMB.pep:*
   /cgn2 { ptodata1/iaa/PCTUS_COMB.pep:*
   /cgn2 { ptodata1/iaa/backfiles1.pep:*
   /cgn2 { ptodata2/iaa/backfiles1.pep:*
   /cgn2 { ptodata2/iaa/backf
               GenCore version 5.1.4 p5_4578
Copyright (c) 1993 - 2003 Compugen_Ltd.
                                                                                             protein search, using frame_plus_n2p model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-058-489-46
US-09-134-0010-5655
US-09-134-0010-4893
US-09-134-0010-4420
US-08-612-986-5
US-08-361-806A-5
US-08-134-0010-5576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCT-US96-01444-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-894-236-6
US-08-919-624-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-415-818-6
                                                                                                                                                                                                                                                                                                                                                                                                                                             262574 segs, 29422922 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                  Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                            US-09-768-781-2
2543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129
800
290
290
357
357
357
357
357
                                                                                                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match
                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         110
98
98 . 59
96 . 59
96 . 59
96 . 69
96
                                                                                                                                                                                                                                                                                                                  Scoring table:
```

Database :

26439799111

Result

Minimum DB Maximum DB M

| 267 TTCATCCATTATGGTCCAGTTGACCCTCATTTTGTCCACAGAGATCTAGCCCAAAGATAA 326 | | 559ATCCAAGCTTCCTGGGTCAGTGCCCCAAGCTTATCAGCTCTATCAGTGCAG 511 :: :: :: :: : | 642 eSerLeullePheileArgGlnArgLeuThrMetValValLeuAsnGlyMetileGlyPh 662 822 CTCAGCCACTTTGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGAT 875 ::: | 702 OARGVALLYSALAÅSENLEULYSLYSGLUTHTPHELYSITETTEVALSETLEUVALMETAL 722 975 GATTTCAGTCACCATCCTCTATGCTGCACTTCTTTGCTGGTCAGCTTTGCA 1031 722 aLGUTHYGLYGLYSETLEULTEPHEVALALAGIGLAABABGGLYMEtPROSETITEAL 742 1032 GTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAAATGGGGCACATATGGGCCT 1091 742 aLysbheTyrGluAapAlaTyrGluLeuThrGlyGlyLysbAn756 | |
|----------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| & & & & & & & & & & & & & & & & & & & | 8 & 8 & 8 | 5 | 6 8 6 8 6 8 6 | 8 6 8 6 8 | 6 6 6 6 |
| Oy 702 GTTGGCTATCCAGATCAAGTACGATGACTTCGCCTTGGGCCACTAGAAGTCCT 761 | 85 85 942 105 990 | RESULT 2 US-09-134-001C-5655 Sequence 5655, Application US/09134001C Sequence 5655, Application US/09134001C Patent No. 6380370 APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: BIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: GTC-007 CURRENT APPLICATION NUMBER: US/09/134,001C CURRENT FILING DATE: 1998-08-13 PRIOR APPLICATION NUMBER: US 60/064,964 PRIOR APPLICATION NUMBER: US 60/055,779 PRIOR PILING DATE: 1999-108-14 PRIOR PILING DATE: 1999-08-14 | BEQ ID NO 5655 LENGTH: 800 TYPE: PAT ORGANISM: Staphylococcus epidermidi 09-134-001C-5655 GIRMENT Scores: 0.000441 STE: 114.00 rcent Similarity: 40.14* STE Local Similarity: 21.77* sty Match: 4.48* | | Db 422 pGlnTyrGlyPheValLeuThrPhèValIleIleSerIleGiyValIleAiaSerIl 441 Qy 190GCTTTGTACATGGTTAGAATCTATCGAAAGAATACTGAAACTTA 233 |

us-09-768-781-2.n2p.rai

```
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR PILING DATE: 1997-01-08
PRIOR PILING DATE: 1997-01-08
PRIOR PILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 4420
                                         ---GIGAAAGIGITACIGAATIACIGICATICCITGAITGCCTIGCAGCICATIAITGCT 1209
                                                                                                                             1210 TATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCATCCATTGCGCTCA 1269
172 ProGlyIleSerGlySerPheMetLeuLeuValPheGlyValTyrGlyThrLeuMetTyr 191
                                                                    127 CGATTTACTTTTCCATTTAGCATCCTTTTTCTCCACCTTTTTGTACTGTGGGGAGGCTGCA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    87 ThrGlnGluMetAlaHisTyrIleValSerMetLysTyrIleLeuIleTyrValIleGly 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |||||||:::|||
107 ValPhePheLeuPheLysTyrValLysHisTrpIleArgAsnGluMetIleLeuArgPhe 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----TCATCCATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAA 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          322 GAT------AAACGGCTATCATTATTTTATGCATCTAATCGTTGGGA 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364 CCTGTTATCAGATGTTTGGAGGCCATGATTAAGTACCTCACACTGTGGAAGAAGAGGAG 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            47 LysTrpThrLeuMetIleSerIleAlaLeuSerLeuLeuLeuLeuLysArgGlyAlaLeu 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67 GlyValValGlnLeulleIleLeufyrMetLeuArgSerGlnIleTyrThrProfyrAsp 86
                                                                                                                                                                                                                                                   221 -----SerSerArgLeulleGlnTyr------CysLeuHisGlnHisPro 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 TCTGCTTTGTACATGGTTAGAATCTATCGAAAGAATAGTGAAACTTACTGG-----
                                                                                                                                                                                                              1270 CTCTTCACCCATAATGTAGTAGACTACCTCCATTGTGTCTGCTGTCACCAGCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           451
78
85
162
137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-768-781-2 (1-1389) x US-09-134-001C-4420 (1-451)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels:
                                                                                                                                                                                                                                                                                                                                  ; Sequence 4420, Application US/09134001C; Patent No. 6380370; GENERAL INFORMATION:
                                                                                                                                                     212 PheGlyllevalThrGlyPheMetlle---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Staphylococcus epidermidis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.50
35.28%
16.88%
3.87%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                 US-09-134-001C-4420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-134-001C-4420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match:
                                         1153
                                                                               셤
                                                                                                                                                           셤
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                         ò
                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                    USSOURCE 4893, Application US/09134001C

Sequence 4893, Application US/09134001C

Sequence 4893, Application US/09134001C

Sequence 4893, Application US/09134001C

Factor No. 288070

GENERAL INFORMATION:

TITLE OF INVENTION: BEDERALD SEQUENCES RELATING TO STAPHYLOCOCCUS

FILE REPRENCE: GTC-07

CURRENT APPLICATION NUMBER: US/09/134,001C

CURRENT PILING DATE: 1996-08-13

PRIOR APPLICATION NUMBER: US 60/065,779

PRIOR PILING DATE: 1997-11-08

PRIOR PILING DATE: 1997-08-14

SEQ ID NO 4893

LENGTH: 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                988 ATCCTCTATGCTGGCATCAACTTCTCTTGCTGGTCAGCTTTGCAGTTGAGGTTGGCAGAC 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1048 AGAGATCTCGTCGACAAAGGCAGAACTGGGGACATATGGGC------CTGCAC 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACCATCTGGCGGACA 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         874 ATCATCCTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAAC 933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  934 ATTGAGAAAAACTTCAGCCGGGTCGGCACTCTGGTGGTCCTG-----ATTTCAGTCACC 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------AspLys------HisSerGlyGluThrLeuThrLeuSer 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheSerLeullelleLysTyrPheIleAlaGlyValPheAlaSerSerAlaMetLeuLeu 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ||||||||
24 LeuValProGlyValSerGlyGlyThrIleAlaLeuLeuLeuGlyIle-----Tyr 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeulysPheLeuLeuProlleLeuValGlyMetLeulleAlaileGlyLeuLeuSerGln 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuPheAsnTyrLeuLeuSerGlnHisHisIleProThrMetLeuPhePheThrGlyLeu 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGATCAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 AspAspPhelleSerSerIleSerGlyLeu-----PheSerArgArgPheTrpProSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTTCTCAGCCACTTTGAAATTGAAGGCTGTGCCC---TTCCTAGTGCTCAACTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGGAG------ATCACTTCCCGCCTCCTGATTCTGGTG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----GTAGAGAATGTGATCATGGTCTTGGTTTTTAAGTTCTTTGGA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
42
73
87
14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-768-781-2 (1-1389) x US-09-134-001C-4893 (1-290)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: PRT
; ORGANISM: Staphylococcus epidermidis
US-09-134-001C-4893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.00402
103.50
38.22%
22.01%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1096 TATAGTGTGAGGTTG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
Pred. No.:
               790 r 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1162 TTACTGAATTACTGTCATTCCTTGATTGCCTTGCAGCTCATTATTGCTTAT---CTGATT 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1219 TCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTGCATCCATTGCGCTCACTCTTCACC 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                982 GTCACCATCCATGCTGGCATCAACTTCTTGCTGGTCAGCTTTGCAGTTGAGGTTG 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1102 GTGAGGTTGGTAGAATGTGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAGTG 1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1042 GCAGACAGAGATCTCGTCGACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGT 1101
                                                                                                                                              .97 IleValileAlaProLysSerTyrLeuileAspGluGluSerLeuArgSerValPheLys 216
                                                                                                                                                                                                                                                                                                                                                          619 TCTGCAGAGGTTCCCCTGGGTAGAGTTGTGCTAATGGTATTTTCCCTGGFATCTGTCACC 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250 -----LeuAsnIleGlyMetIleGluLeuTyrLeuSerAsnSerArgHisIlePhe 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               267 IleSerVallleLeuCysLeuMetLeuLeuLeuProLeuSerHisIleLysLysArglle 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     739 CGC------CTTGGGCCACTAGAAGTCCTCTGCATCACCATCTGGCGGACATTGGAG 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    347 SerGlyPheGlyIle-------ProMetIleLyB-------------355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             356 -----AlaSerSerGluIleGlnTyrPheAsnValAlaThrSerAsnIleIlePheGly 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :::|||||||
-----IleGlyLeuThrLeuCys 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387 ThrileTyrMetLeuHisMetValLeuLeuValThrPhePro---MetSerlleThrile 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            406 LeuLeuPheLeuIleThrIlePheValAsnMetAspTyrileileLeuPheAspSerVal 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      426 GlyLeuĠlyIleLeuCysTyrIlePheTrpGlyIleTyrLeuLysGluGlyMetTyrGln 445
                                                  177 AsnLeulleAsnTrplleAsnGlnPhelleThrLeuVallleAlaPheThrPheLeuPhe 196
                                                                                                                                                                                                               499 GTGGGCCACTCCATCCGGACCCTGGCTATGCACCGCAATGCCTACAAACGTATGTCACAG 558
                                                                                                                                                                                                                                                                                                                      559 ATCCAAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCTCTATGTGAGCCTGATC 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        679 TATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGATCAAGTACGATGACTACAAGATT 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTTCCTAGTG 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         922 ATGCCCAATAACATTGAGAAAAACTTCAGCCGGGTCGGCACTCTGGTGGTCCTGATTTCA 981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              862 CTCAACTICCIGAICAICCICTITIGAGCCCTGGAITAAGTICTGGAGAAGTGGTGCCCAG 921
                                                                                                       ----CTCACCCGAAAGAAGAAGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAG
                                                                                                                                                                                                                                                           217 AspAlaHisSerPheAlaValileLeu-------AlaMetGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               374 Met---IleIlePheThrGlyIle-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          823 TCAGCCACTTTGAAATTGAAGGCTGTG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-08-612-986-5
', Sequence 5, Application US/08612986
', Patent No. 5770384
424 CAGGAGGAGCCCTATGTCAGC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1279 CATAAT 1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    446 TyrAsn 447
                                                                                                       445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                            è
                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
```

```
273 CATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAACCGCT 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240 PheProAlaValGlnTyrLeuSerGlnProGlnHisGlnProTyrAlaValHisGlyHis 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387 CATGATTAAGTACCTCACACTGTGGAAGAAGAAGAGGAGCAGGAGGAGCCCCTATGTCAGCCT 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260 PheGln-----ProThrGlnThrGlyPheLeuGlnProdlyGlyAlaLeuSerLeuGln 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       278 LysGlnMetGluHisAlaAanGlnGlnThrGlyPheSerAspSerSerSerSerLeuArgPro 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         507 ------CTCCATCCGGACCCTGGCTATGCACGCAATGCCTACAAAGGTAT 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -Leu 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       333 ATC----ATTATTATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447 CACCCGAAAGAAGATGCTAATAGATGCGAGGAGGTGCTGATAGAATGGGAGGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :::
310 LeuAlaSerProGlnLeuProValGlnMetGlnProAlaGlyLysSerAla 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                552 GTCACAGATCCAAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCT 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 357
35
9
56
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-768-781-2 (1-1389) x US-08-612-986-5 (1-357)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Biliot J. Androphy
APPLICANT: Dave E. Breiding
TITLE OF INVENTION: E2 BINDING PROTEINS
NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lahive & Cockfield
STREET: 60 State Street, suite 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
                                                                                                                                                                                                                                                                                                                                                                                                                 PILING DATE:
CLASSIFICATION: 800
PRIOR PAPLICATION DATE:
APPLICATION DATE:
APPLICATION NUMBER: 08/361,806
FILING DATE: 22 DEC 1994
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Myers, Paul L.
REGISTRATION NUMBER: 35,965
REFERENCE/DOCKET NUMBER: NEP-004DV
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/612,986
                                                                                                                                                                                                                                             ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : 357 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96.50
37.61%
29.91%
3.79%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; MOLECULE TYPE: protein US-08-612-986-5
                                                                                                                                                                                                      STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 02109-1875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
```

```
37.61%
29.91%
3.79%
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-134-001C-5576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCT-US95-16806A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220 HisTyrGlyProThrGlnProAlaTyrSerProSerGlnGlnLeuArgAlaProSerAla 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       278 LysGlnMetGluHisAlaAsnGlnGlnThrGlyPheSerAspSerSerSerLeuArgPro 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        333 ATC-----ATTATTTATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGGAGGC 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   387 CATGATTAAGTACCTCACACTGTGGAAGAAAGAGGAGGAGGAGGAGCCCTATGTCAGCCT 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260 PheGln-----ProThrGlnThrGlyPheLeuGlnProGlyGlyAlaLeuSerLeuGln 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---Leu 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273 CATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAACCGCT 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              507 ------CTCCATCCGGACCCTGGCTATGCACCGCAATGCCTACAAACGTAT 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 447 CACCCGAAAGAAGATGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAGGTGGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCACAGATCCAAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCT 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     298 MetHisProGlnAlaLeuHisProAlaProGly-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-768-781-2 (1-1389) x US-08-361-806A-5 (1-357)
                                GENERAL INFORMATION:
APPLICANT: Elliot J. Androphy
APPLICANT: Dave E. Breiding
TITLE OF INVENTION: E2 BINDING PROTEINS
NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lahive & Cockfield
STREET: 60 State Street, suite 510
                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: ASCIII. text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/361,806A
FILING DATE: 22 DEC 1994
CLASSIFICATION: 530
ATTORNEYAGENT INPORMATION:
NAME: Myers, Paul L.
REGISTRATION NUMBER: 35,965
                                                                                                                                                         E: Lahive & Cockfield
60 State Street, suite 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 35,965
REFERENCE/DOCKET NUMBER: NEP-004
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-541
INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
Sequence 5, Application US/08361806A
Patent No. 5792833
                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0.0288
96.50
37.61%
29.91%
3.79%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 357 amino acid
                                                                                                                                                                                                          Massachusetts
: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                    02109-1875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity:
Query Match:
                                                                                                                                                                                           Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
                                                                                                                                                                                           CITY: BOE
STATE: Ma
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-361-806A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

```
APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: WUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS TITLE OF INVENTION: BEIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: GTC-007
CURRENT APPLICATION NUMBER: US/09/134,001C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     278 LysGlnMetGluHisAlaAsnGlnGlnThrGlyPheSerAspSerSerSerLeuArgFro 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             273 CATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAACCGCT 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       333 ATC-----ATTATTTATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGGAGGC 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   387 CATGATTAAGTACCTCACACTGTGGAAGAAGAGGAGCAGGAGGAGCCCCTATGTCAGCCT 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260 PheGln-----ProThrGlnThrGlyPheLeuGlnProGlyGlyAlaLeuSerLeuGln 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    507 ------CTCCATCCGGACCCTGGCTATGCACCGAATGCCTACAAACGTAT 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 447 CACCCGAAAGAAGATGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAGGTGGGCCA
310 LeuAlaSerProGlnLeuProValGlnMetGlnProAlaGlyLysSerAla 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               552 GTCACAGATCCAAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCT 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     357
35
9
56
117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-768-781-2 (1-1389) x PCT-US95-16806A-5 (1-357)
                                                                                                                                                           APPLICANT:
TITLE OF INVENTION: E2 Binding Proteins
NUMBER OF SEQUENCES: 21
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII (text)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/16806A
FILING DATE: December 22, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
                                                                                                                                                                                            E2 Binding Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/361,806
FILING DATE: 22-DEC-1994
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 5576, Application US/09134001C Patent No. 6380370
                                                                                                           Sequence 5, Application PC/TUS9516806A GENERAL INFORMATION:
```

ø

```
ADDALSTREET: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              JS-08-415-818-6
                                                                                                                                                                                                                                 1153
                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                   셤
                    8
                                       a
                                                                     à
                                                                                          셤
                                                                                                                    8
                                                                                                                                                 유
                                                                                                                                                                          ò
                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     123 AlaAlaIleLeuCysProThrAspAlaValAlaValGlnAlaIleThrLysGlyLysVal 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             163 Ilelle-----SerPheLysIleAlaValGlyValLeulleThrGlyThrPheSer 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      370 ATCAGATGTTTGGAGGCCATGATTAAGTACCTCACACTGTGGAAGAAGAG------420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 712 CAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCACTAGAAGTCCTCTGCATCACC 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCTGGCGGACATTGGAG-----ATCACTTCC---------CGCCTC 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        805 CTGATT-----CTGGTGCTCTTCTCAGCCACTTTGAAATTGAAGGCTGTGCCCTTC 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            856 CTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGT 915
                                                                                                                                                                                                                                                                                                 -TTTGTCCACAGA 309
                                                                                                                                                                                                                                                                                                                                                     310 GATCTAGCCAAAGATAAACCGCTATCATTATTTATGCATCTAATCCTCTTGGGACCTGTT 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCAGGAGGAGCCCTATGTCAGCCTCACCCGAAAGAAGATGCTAATAGATGGCGAGGAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATCAGCTCTATGTGAGCCTGATCTCTGCAGAGGTTCCCCTGGGTAGAGTTGTGCTAATG 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -------GTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATC 711
                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83
                                                                                                                                                                                                                                                                                                                481 GTGCTGATAGAATGGGAGGTGGGCCACTCCATCCGGACCCTGGCTATGCACCGCAATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACAAACGTATGTCACAGATCCAAGCCTTCCTGGGCTCAGTG-----CCCCAGCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200 ilelleGlyMetAlaLeuValArgPheArgLeuThrLeuMetArgArgGlyIleGluAsn
                                                                                                                                                                                                                                                                                                                                                                       ::: ||| ||||||:::
27 PhelleProLys---ValProLeuAlaPhelleGln-----llePheLeuGly-----
                                                                                                                                                                           683
82
77
77
151
103
                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                      US-09-768-781-2 (1-1389) x US-09-134-001C-5576 (1-683)
                                                                                                                                                                                                                                                                                                262 ATGITITCATCCATTATGGTCCAGTTGACCCTCATT----
                                                                                                                                                                                                                                              Gaps:
               PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-08-14
SEQ ID NO 5576
LENGTH: 683
                                                                                                                       ORGANISM: Staphylococcus epidermidis US-09-134-001C-5576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTATTTTCCCTG------
CURRENT FILING DATE: 1998-08-13
                                                                                                                                                                                       96.50
38.50
19.85
                                                                                                                                                                                                                    Similarity:
                                                                                                                                                                                                    Percent Similarity:
Best Local Similari
                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                            Query Match:
                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     772
                                                                                                                                                                                                                                                                                                                                                                                                                                     42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                     ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
976 ATTICAGICACCAICCICIAIGCIGGCAICAACTICICITGCIGGICAGCITIGCAGIIG 1035
                                                                                                                                                                                                                                  1036 AGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAGAACTGGGGACATATGGGCCTGCAC 1095
                                                                                                                                                                                                                                                                                                                                                            1152 TATAGTGTGAGGTTGGTAGAGAATGTGATCATGGTCTTGGTTTTTAAGTTCTTTGGA--- 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------GIGAAAGIGITACIGAAITACTGTCAIICCIIGAITGCCIIG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1195 CAGCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTTTCTTCCAGTACTTG 1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1255 CATCCATTGCGCTCACTCTTCACCCATAATGTAGTAGACTACCTCCATTGTGTCTGCTGT 1314
                                                                                                                                                                                                                                                                              296 LeuValProGluValIleValLysIleIleLysThrGluProHisAsnLeuLeuPheLeu 315
916 GCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCCGGGTCGGCACTCTGGTGGTCCTG 975
                                                     -----ileAlaGluLeuPheHisAlaSerGlyIleIleAlaAlaVal 250
                                                                                                                                                                                                                                                                                                                                                                                                                     276 HisThrTrpSerIleLeuGlyTyrvalLeuAsnGlyPhevalPheSerIleLeuGlyPhe 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::: ||| ::: ||| 335 TyrValLeuTyrProTyrPheTyrLeuSerValSerProPheGlnLysWetIle----- 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/415,818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1315 CACCAGCACCTCGGACCAGGGTTGAGAACTCAGAGCCA 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                353 SerLysAsnAspGluAspLysValThrGluSerLysPro 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3: Mary A. Appollina
P.O. Box 2000, 126 E. Lincoln Ave.
                                                                                                                                                             :::
251 Val-----AlaGlyLeu----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Shiao, Lin-Lin
APPLICANT: Strader, Catherine D.
APPLICANT: Tan, Carina P.
APPLICANT: Weinberg David H.
TITLE OF INVENTION: NEUROPEPTIDE Y
NUMBER OF SEQUENCES: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 34,087
REFERENCE/DOCKET NUMBER: 19390
TELECOMMUNICATION INFORMATION:
TELEPHONE: 908-594-3462
TELEFAX: 908-594-4720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/383,746
FILING DATE: 03-FBE-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cascieri, Margaret A.
Linemeyer, David L.
MacNeil, Douglas J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 6, Application US/08415818
Patent No. 5621079
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Appollina, Mary A REGISTRATION NUMBER: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
```

```
셤
                                                                                    ò
                                                                                                                                                   ઠે
                                                                                                                                                                                   g
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----TTACTTTTCCATTTAGCA 148
                                                                                                                                                                                                                                                                                                                                                                                                                                    209 TCTATCGAAAGAATAGTGAAACTTACTGGATGACATACACCTTTTTCTTTTATGTTTT 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      269 CATCCATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAAC 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCTATCATTATT----TATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGG 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         383 AGGCCATGATTAAGTACCTCACACTGTGGAAGAAGAAGAGGAGGAGGAGGAGCCCTATGTCA 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         443 GCCTCACCCGAAAGAAGATGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAGGTGG 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------HisTrpValPheG 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCACTCCATCCGGACCCTGGCTATGCACCGCAATGCCTACAAACGTATGTCACAGATCC 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              563 AAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTG 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 erValSerIlePheSerLeuValLeuIleAlaIleGluArgTyrGlnLeuIleValAsnP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAGGTTCCCCTGGGTAGAGTTGTG-------CTAATGGTATTTCCCTGG 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 668 TATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGATCAAGTACGATG 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161 leSerLeuThrLeuSerIleProLeu-----PheLeuSerTyrHisLeuThrAsnGluP 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199 leTrpProSer------LysLeuAsnGlnLeuLeuPheSerThrSerL 213
                                                                                                                                                                                                                                                                                                                   :::|||||||||:::
GlnProThrProAsnLysThrSerGlyLysSerAsnAsnSerAlaPhePheTyrPheGlu 26
                                                                                                                                                                                                                                                                                                                                                                    TCCTTTTCTCCACCTTTTTGTACTGTGGGGAGGCTGCATCTGCTTTGTACATGGTTAGAA 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                          43 ThrVallleLeulleMetGlyIlePheGly-AsnLeuSerLeulleIleIleIle---- 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            105 lyAsnThrMetCysLysLeu------ThrSerTyrvalGlnSerValSerValS 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGGCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTT 832
                                                                                                                                                                                                                                                                                                                                                                                                   SerCysGlnProProPheLeuAlaIle-----LeuLeuLeuLeulleAlaTyr 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAAATTGAAGGCTGTGCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                728 ACTACAAGATTCGCCTTGGGCCACTA------GAAGTCCTCTGCATCACA
                                                                                                                                                   371
78
85
153
120
                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                   US-09-768-781-2 (1-1389) x US-08-415-818-6 (1-371)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91 roPheThrVallleTyr------
                                                                                                                                                                                                                                                                                                    GAGCCAACCCCCGAT------
                                                                                                                                                                96.00
37.39$
17.89$
3.78$
               SEQUENCE CHARACTERISTICS
LENGTH: 371 amino acids
TYPE: amino acid
TOPOLOGY: linear
INFORMATION FOR SEQ ID NO:
                                                                               , MOLECULE TYPE: protein US-08-415-818-6
                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                   Query Match:
                                                                                                                                                                                                                                                                                                                                                                    149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                                                                                   27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                    Score:
                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
1121 TGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATT 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1181 CCTTGATTGCCTTGCAGCTCATTATTGCTTATTCTGATTTCCATTGGCTTCATGCTCTTT 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1241 TCTTCCAGTACTTGCATCCATTGCGCTCACTCTTCACCCATAATGTAGTAGACTACCTCC 1300
                                                                                                      953 GGGTCGGC------ACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTG 1000
                                                                                                                                                                                                                1061 ACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATG 1120
                                                  232 leValLeuCysLeuArgLysArgThrArgGlnValAspArgArgLysGluAsnLysSerA 252
                                                                                                                                             279 --IlePheAsnValllePheAspTrpTyrHis---GluMetLeuMetSerCysHisHisA 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            893 GGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCC 952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1301 ATTGTGTCTGCTGTCACCAGCACCAGGACCAGGGTTGAGAAC 1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       272 ------AlaCysTrpLeuProLeuAsn-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENY APPLICATION DATA:
APPLICATION NUMBER: US/08/894,236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Castleir, Maryaret, A. APPLICANT: MacNeil, Douglas J. APPLICANT: Shiao, Lin-Lin APPLICANT: Shiao, Lin-Lin APPLICANT: Strader, Catherine D. APPLICANT: Tan, Carina P. APPLICANT: Weinberg, David H. TITLE OF INVENTION: NEUROPEPTIDE Y RECEPTOR NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS: ADDRESS: ADDRESSEE: Mary A. Appollina STREET: P.O. Box 2000, 126 E. Lincoln Ave.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 08/383,746
FILING DATE: 03-FEB-1995
PRIOR APPLICATION NUMBER: 08/415,818
FILING DATE: 03-APR-1995
ATORNEY/AGENT INFORMATION:
NAME: APPOLIUM: MAY A.
REGISTRATION NUMBER: 34,087
REFERENCE/DOCKET NUMBER: 19390Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Cascieri, Margaret A.
                                                                                                                                                                                                                                                                                                                                                                         278 -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 6, Application US/08894236
Patent No. 5939263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 07065
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rahway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-894-236-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
```

```
278
                                    임
                                                                              ò
                                                                                                          셤
                                                                                                                                               8
                                                                                                                                                                              g
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                 116 GAGCCAACCCCCGAT------148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              383 AGGCCATGATTAAGTACCTCACACTGTGGAAGAAGAGAGGAGCAGGAGGAGCCCTATGTCA 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                443 GCCTCACCCGAAAGAAGATGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAGGTGG 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        503 GCCACTCCATCCGGACCCTGGCTATGCACCGCAATGCCTACAAACGTATGTCACAGATCC 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            563 AAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTG 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 523 CAGAGGTTCCCCTGGGTAGAGTTGTG------CTAATGGTATTTTCCTGG 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ::|||:::|||
161 leSerLeuThrLeuSerlleProLeu-----PheLeuSerTyrHisLeuThrAsnGluP 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTGGCGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTGGAGCCACTT 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   149 TCCTTTTCTCCACCTTTTTGTACTGTGGGGAGGCTGCATCTGCTTTGTACATGGTTAGAA 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              269 CATCCATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAAC 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        329 CGCTATCATTATT-----TATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGG 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 erValSerIlePheSerLeuValLeuIleAlaIleGluArgTyrGlnLeuIleValAsnP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     668 TATCTGTCACCTATGGGCCCACCCTTTGCAATATGTTGGCTATCCAGATCAAGTACGATG 727
                                                                                                                                                                                                                                                                                                                                                                                                       :::||||||||||:::
7 GlnProThrProAsnLysThrSerGlyLysSerAsnAsnAsnSerAlaPheFyrPheGlu 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 SerCysGlnProProPheLeuAlaIle------LeuLeuLeuLeuIleAlaTyr 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71 rAsnileLeulleAlaAsnLeuSerLeuSerAspileLeuValCys-ValMetCysileP 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 ThrVallleLeulleMetGlyllePheGly-AsnLeuSerLeullellellelle----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     728 ACTACAAGATTCGCCTTGGGCCACTA------GAAGTCCTCTGCATCACCA
                                                                                                                                                                                                                      371
78
85
153
120
                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                              US-09-768-781-2 (1-1389) x US-08-894-236-6 (1-371)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::: |||
91 roPheThrValIleTyr-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------ThrieuMetAsp
TELECOMMUNICATION INFORMATION
                    TELEPHONE: 908-594-3462
TELEPAX: 908-594-4720
INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 371 anino acide: TYPE: amino acide: TYPE: amino acide: MOLECULE TYPE: protein US-08-894-236-6
                                                                                                                                                                                                                                       96.00
37.39%
17.89%
3.78%
                                                                                                                                                                                                                      0.0336
                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                         Query Match:
                                                                                                                                                                                                                   Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
```

유 ઠે

δ

8

ð

셤

ઠે

용

δ

8

윤

원 ઠે 유 g

```
1240
                                                                                                                                                                                                      953 GGGTCGCC------ACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTG 1000
                                                                                                                                                                                                                                                                                                      1061 ACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATG 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1241 ȚCTTCCAGTACTȚGCATCCATTGCGCTCACTCȚȚCACCCATAATGTAGTAGACTACCTCÇ 1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  833 TGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCT 892
                                                                                                                                  279 --ilePheAsnValIlePheAspTrpTyrHis---GluMetLeuMetSerCysHisHisA 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1121 TGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1181 CCTTGATTGCCTTGCAGCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTTTT
                               213 euPheMetLeuGlnTyr---PheValProLeuGlyPheIleLeuIleCysTyrLeuLysI
                                                                                                     893 GGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1301 ATTGTGTCTGTCACCAGCACCTCGGACCAGGGTTGAGAAC 1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                334 isHisCysTrpCysGlyGlu---ProGlnGluSerTyrGluAsn 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4. Application US/08919624
; Patent No. 5994097
; GENERAL INFORMATION:
    APPLICANT: Lal, Preeti
    APPLICANT: Shah, Purvi
    APPLICANT: Guegler, Karl J.
    APPLICANT: Corley, Neil C.
    TITLE OF INVENTION: NEW HUMAN G-PROTEIN COUPLED
    TITLE OF INVENTION: RECEPTOR
    NUMBER OF SEQUENCES: 4
    CORRESPONDENCE ADDRESS:
    ADDRESSEE: Incyte Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FasteSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/919,624
FILING DATE: Filed Herewith
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Incyte Pharmaceuticals, Inc 3174 Porter Dr.
                                                                                                                                                                                                                                                                                                                                                        272 -----AlaCysTrpLeuProLeuAsn----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PF-0377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEPHONE: 415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 3174 Por
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: C. COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-919-624-4
```

1 09:03:24 2003

Tue Apr

```
1240
                                                                                                                                                             953 GGGTCGCC------ACTCTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTG 1000
                                                                                                                                                                                                                                           1061 ACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAATG 1120
                                                                                                                                                                                                                                                                                                                                                                                                     1121 TGATÇATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATT 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1241 TCTTCCAGTACTTGCATCCATTGCGCTCACTCTTCACCCATAATGTAGTAGACTACCTCC 1300
                                                                                                      317 heTyrGlyPheLeuAsn------LysAsnPheGlnLysAspLeuMetMetLeuIleH 334
833 TGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCT 892
                          213 euPheMetLeuGlnTyr----PheValProLeuGlyPheIleLeuIleCysTyrLeuLysI
                                                                                                                                                                                      893 GGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAACTTCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1181 CCTTGATTGCCTTGCAGCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1301 ATTGTGTCTGCTGTCACCAGCACCAGGACCAGGGTTGAGAAC 1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334 isHisCysTrpCysGlyGlu---ProGlnGluSerTyrGluAsn 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM FO Compactible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CAURENY APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/01444
FILING DATE:
                                                                                                                                                                                                                                                                    APPLICANT: Linemeyer, David L.
APPLICANT: MacNeil, Douglas J.
APPLICANT: Shiao, Lin-Lin
APPLICANT: Strader, Catherine D.
APPLICANT: Tan, Carina P.
APPLICANT: Tan, Carina P.
APPLICANT: Welhbergy David H.
APPLICANT: WENDEPTIDE Y RECEPTOR NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Mary A. Appollina
STREET: P.O. Box 2000, 126 E. Lincoln Ave.
CITY: Rahway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/383,746
FILING DATE: 03-FEB-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/415,818
FILING DATE: 03-APR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 6, Application PC/TUS9601444
GENERAL INFORMATION:
APPLICANT: Cascieri, Margaret A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cascieri, Margaret A.
Linemeyer, David L.
MacNeil, Douglas J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Appollina, Mary A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCT-US96-01444-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE:
                                        셤
                                                                     유
유
                                                                                                                                                     ઠે
                                                                                                                                                                                          g
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
```

```
GENERAL INFORMATION:
APPLICANT: Thorne:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: D. COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-660-963-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                    ò
                                                                 용
                                                                                                  ò
                                                                                                                           g
                                                                                                                                                              ò
                                                                                                                                                                                             a
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                           ે
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 773 TCTGGGGGACATTGGAGATCACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCCACTT 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97 ------HisTrpValPheG 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           503 GCCACTCCATCCGGACCCTGGCTATGCACGCAATGCCTACAAACGTATGTCACAGATCC 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 563 AAGCCTTCCTGGGCTCAGTGCCCCAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTG 622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            623 CAGAGGTTCCCCTGGGTAGAGTTGTG-------CTAATGGTATTTTCCCTGG 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||||||
| soargGlyTrpLysProArgValAlaHisAlaTyrTrpGlyIleIleLeuIleTrpLeuI 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    668 TATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTGGCTATCCAGATCAAGTACGATG 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      728 ACTACAAGATTCGCCTTGGGCCACTA------GAAGTCCTCTGCATCACA 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    116 GAGCCAACCCCGGAT---------------TTACTTTTGGCA 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     209 TCTATCGAAAGAATAGTGAAACTTACTGGATGACATACACCTTTTCTTTTATGTTTT 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269 CATCCATTATGGTCCAGTTGACCCTCATTTTTGTCCACAGAGATCTAGCCAAAGATAAAC 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329 CGCTATCATTATT----TATGCATCTAATCCTCTTGGGACCTGTTATCAGATGTTTGG 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                383 AGGCCATGATTAAGTACCTCACACTGTGGAAGAAAGAGGGGGGCGAGGAGGAGCCCTATGTCA 442
                                                                                                                                                                                                                                                                                                                                                                                                                                       149 TCCTTTTCTCCACCTTTTTGTACTGTGGGGAGGCTGCATCTGCTTTGTACATGGTTAGAA 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 GlnProThrProAsnLysThrSerGlyLysSerAsnAsnSerAlaPhePheTyrPheGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27 SerCysGlnProProPheLeuAlaile------LeuLeuLeuLeulleAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43 ThrVallleLeulleMetGlyIlePheGly-AsnLeuSerLeulleIleIleIle-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              443 GCCTCACCCGAAAGAAGAAGATGCTAATAGATGGCGAGGAGGTGCTGATAGAATGGGAGGTGG
                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                       US-09-768-781-2 (1-1389) x PCT-US96-01444-6 (1-371)
                  REPERENCE/DOCKET NUMBER: 19390Y
TELECOMMUNICATION INFORMATION:
TELEPRONE: 908-594-3462
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 371 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91 roPheThrValIleTyr-------
REGISTRATION NUMBER: 34,087
                                                                                                                                                                                                                            0.0336
96.00
37.39%
17.89%
3.78%
                                                                                                                                            TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                 PCT-US96-01444-6
                                                                                                                                                                                                                                Мо.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
```

```
1121 TGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATT 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1181 CCTTGATTGCCTTGCAGCTCATTATTGCTTATCTGATTTCCATTGGCTTCATGCTCCTTT 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1241 TCTTCCAGTACTTGCATCCATTGCGCTCACTCTTCACCCATAATGTAGTAGACTACCTCC 1300
                                                                                                                                                                                                                                                                                                   953 GGGTCGGC------ACTCTGGTGGTCCTGATTTCAGTCACCATCTCTATGCTG 1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1061 ACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTGAGGTTGGTAGAGAATG 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279 --IlePheAsnValllePheAspTrpTyrHis---GluMetLeuMetSerCysHisHisA 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        893 GGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATTGAGAAAAACTTCAGCC 952
                                                                                                                                                                                                                                         232 leValLeuCysLeuArgLysArgThrArgGlnValAspArgArgLysGluAshLysSerA 252
                                                                                                                                                                                                                                                                                                                                  ||||
297 spLeuValPheValValCysHisLeulleAlaMetValSerThrCysIleAsnProLeuP
                                                                833 TGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTTGAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Thorner, Michael O.
APPLICANT: Gaylinn, Bruce D.
APPLICANT: Horikawa, Reiko
APPLICANT: Lyons Jr., Charles E.
APPLICANT: Lyons Jr., Charles E.
TITLE OF INVENTION: MOLECULAR CLONING OF THE OVINE PITUITARY
TITLE OF INVENTION: GROWTH HORMONE RELEASING HORMONE RECPIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: POPHAM, HAIK, SCHNOBRICH & KAUFMAN, LTD.
STREET: Metropolitan Square Building, Suite 800, 1450
STREET: G. Street
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1301 ATTGTGTCTGTCACCAGCACCTCGGACCAGGGTTGAGAAC 1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
PPLICATION NUMBER: US/08/660,963
FILING DATE: 12-UNM-1996
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     272 ------AlaCysTrpLeuProLeuAsn-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY AGENT INFORMATION:
NAME: O'Shaughnessy, Brian P.
REGISTRATION NUMBER: 32,747
REFERENCE/DOCKET NUMBER: 18046.036
TELECOMMUNICATION:
TELEPHONE: 202-824-8000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 12, Application US/08660963
Patent No. 5852187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
```

H

Page

```
379
                                                                                                                                                                                                                                                                                                                                                                                1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1192
                                                                       В
                                                                                                                                          à
                         g
                                                 ઠે
                                                                                            ઠે
                                                                                                                  В
                                                                                                                                                                                       ò
                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                             237
                                                                                                                                                                                                                                                                                                                                                                                                                                                             175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----TrpGlnLysLe 265
                                                                                                                                                                                                                                                             Ser------GlyAlaSerProAlaArgLeuSerSerLeuThrSerAlaTrpSer 136
                                                                                                                                                                                                                                                                                                                                                                                         ------CGATTTACTTTTCCATTTAGCATCCTTTTCTCCACCTTTTTGTACTGTGGG 177
                                                                                                                                                                                                                                                                                                                                                                                                         238 ATGACATACACCTTTTCTTTTATGT --- TTTCATCCATTATGGTCCAGTTGACCCTC 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               295 ATTITIGICCACAGAGAICTAGCCAAAGATAAACCGCTATCATTATTTATGCATCTAATC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTTGGGACCTGTTATCAGATGTTTGGAGGCCA---TGATTAAGTACCTCACACTGTGG 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rserirpSerLeuSerGlyGlySerThrAlaProGlyThrThrSerThrProSerCyaSe 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGAAAG----AGGAGCAGGAGCACCCTATGTCAGCCTCACCCGAAAGAAGATGCTAATA 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          526 ATGCACCGCAATGCCTACAAACGTATGTCACAGATCCAAGCCTTCCTGGGCTCAGTGCCC 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            243 rCysAlaArgLeuLeuProProLeuIleSerArg---ProProThrSerAlaGlyCys-- 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GIGCTAATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCCACCCTTTGCAATATGTTG 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       uCys------ 272
                                                                                                                                                                                                                                                                                                66
                                                                                                                                                                                                                                                -----CCTGAGGAG 69
                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGCTGCATCTGCTTTGTACATGGTTAGAATCTATCGAAAGAATAGTGAAACTTACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            oArg---ProAlaLeuCysProTrpSerCysLeuArgArgAsnProThrSerProArgGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGGCGAGGAGGTGCTGATAGAATGGGAGG---TGGGCCACTCCATCCGGACCCTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTGCAGAGGTTCCCCTGGGTAGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rProProLeuSerSerArgAlnLeuCysSerArgThrProProSerPhe-----
                                                                                                                                         498
1113
35
152
229
29
                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                        US-09-768-781-2 (1-1389) x US-08-660-963-12 (1-498)
                                                                                                                                                                                                                                              22 TCAGAAAGAACCTCGACAATGGACAGAGTTTATGAAATT--
                                                                                                                                                                                                                                                                                              CCAAATGTGGATCCGGTTTCA-------
                                                                                                                                                                                                                                                                                                                                           100 GAAGATGTCATCCGTGGAGCCAACCCC-----
                          77
        TELEX: 248516

INFORMATION FOR SEQ ID NO: 12.

SEQUENCE CHARACTERISTICS:

LENGTH: 498 amino acids

TYPE: amino acid

STRANDEDNESS:

TOPOLOGY: linear

MOLECULE TYPE: protein

US-08-660-963-12
                                                                                                                                        0.0397
96.00
27.98%
21.36%
3.78%
202-824-8199
                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                            Alignment Scores:
Pred. No.:
TELEFAX:
                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                      178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       265
                                                                                                                                                                                                                                                                                                                                                                                         127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       193
                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                     윰
                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
964 CTGGTGGTCCTGATTTCAGTCACCATCCTCTATGCTGGCATCAACT------TC 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1012 TCTTGCTGGTCAGCTTTGCAGTTGAGGTTGGCAGACAGAGATCTCGTCGACAAAGGGCAG 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1072 AACTGGGGACATA----- 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIGCAGCICATTATIGCTTATCTGATTTCCATIGGCTTCATGCTCCTTTTCTTCC---- 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------AGTACTTGCATCCATTGCGTCACTCTTC 1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1276 ACCCATAATGTAGTAGACTACCTCCATTGTGTCTGCTGTCACCAGGACC---CTCGGACC 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------TGGGCCTGCACTATAGTGTGAGGTTGG---TAGAGAATGTGATCATGGTC 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTACTGAATTACTGTCATTCCTTGATTGCC 1191
                                                                                                                                                                                      325 -------LysAspProSerSerSerLeuLeuGlyThrLeuGlyPhePheSe 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359 uSerThrGlyValSerLeuSerGlnArgPheSerSerPheArgCysLeuGluSerThrMe 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tSerPheSerThrSerCysLeuThrValLeuGlyTrpThrSerAlaSerProAsnTrpAs 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          399 pirpalaLeuSerArg----- 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           405 ----AlaSerLeuLeuLeu--------SerCysThrAlaSerSerThrLy 417
                                                                                                                                                                                                                                                                                      826 GCCACTITGAAATTGAAGGCTGTGCCCTTCCTAGTGCTCAACTTCCTGATCATCCTCTTT 885
                                                                                                                                                                                                                                                                                                                                                                                                                                   927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      928 AATA------ACATTGAGAAAAACTTCAGCCGGGTCGGCACT 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                305 oLeulysMetLeuArgAlaGlyThrTrpThrThrAlaProProThrGlyGlySerSer-- 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437 yGlyLeulleSerSerGluAspSerArgValLy8ValLeuThrSerValCy8AlaGlyGl 457
706 GCTATCCAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCCACTAGAAGTCCTCTGC 765
                                                                                                                                     766 ATCACCATCTGGGGGACATTGGAGATCACTTCCGGCCTCCTGATTCTGGTGCTCTTCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          339 rIleLeuSerValSerCysGlyAsnTrpSerGlnLeuArgAlaAlaSerThrProSerLe
                                                                          ---HisCysProAlaGlnGl
                                                                                                                                                                                                                                                                                                                                                                                                                                886 GAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     417 sArgGlyLeuArgSerHisGlyAspGlyThrAlaThrIleLeuAsnPheCysGlnProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-154-802-3
US-09-154-802-3
Sequence 3, Application US/09154802
Patent No. 598922
GENERAL INFORMATION:
APPLICANT: Y. Tom Tang
APPLICANT: Graeler, Karl J.
TITLE OF INVENTION: APPLICANT: Graeler, Karl J.
TITLE OF INVENTION: ATP SYNTHASE SUBUNIT HOMOLOG
FILE REFERENCE: PF-0596 US
CURRENT APPLICATION NUMBER: US/09/154,802
CURRENT APPLICATION NUMBER: 1998-09-17
NUMBER OF SEQ ID NOS: 3
SOFTWARE: PERL PROGRAM
SEQ ID NO 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1333 AGGGTTGAGAACTCAGAGCCACCCT 1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457 nSerLeuArgLeuGluProThrPro 465
                                                                          273 -----
```

```
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1165 CTGAATTACTGTCATTCCTTGCTTGCAGCTCATTATTGCTTATCTGATTTCCATT 1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            988 ATCCTCTATGCTGGCATCAACTTCTCTTGCTGGTCA---GCTTTGCAGTTGAGGTTGGCA 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1045 GACAGAGATCTCGTCGACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTG 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1105 AGGTTGGTAGAGAATGTGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTA 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 165 ValMetIleGluLeuLeuSerTyrMetAlaArgAlaLeuSerLeuGlyLeuArgLeuGly 184
                                                                                                                                                                                                           645
                                                                                                                                                                                                                                                           705
                                                                                                                                                                                                                                                                                                              750
                                                                                                                                                                                                                                                                                                                                                                                                                                 |||
|107 ValValSerLeuValProTyrSerTyrAlaIleAsnAlaGlnLeuMetTrpThrMetGly 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       219 LeuSerlleLeuLeuGlylleValAlaLeuGluSerAlaIleAlaPhelleGlnAlaMet 238
                                                                                                                                                                                                                                                                                                                                                                  751 ---CTAGAAGTCCTCTGCATCACCATCTGGCGGACATTGGAG------ATC 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       877 ATCCTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATT 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          937 GAGAAAAACTTCAGCCGGGTC-----GGCACTCTGGTGGTCCTGATTTCAGTCACC 987
                                                                                                                                                                                                                                                                                     47
                                                                                                                                                                                                                                                                                                                                                                                  586 CAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTGCAGAGGTTCCCCTGGGTAGAGTT
                                                                                                                                                                                                                          ||| ||| ::::::|||
| Il GlnPheThrThrArgValTyrPheGlyLeuSerGerGlyLeuIleAsnLeuAspThrMet
                                                                                                                                                                                                                                                           646 GIGCIAAIGGIAITITCCCIGGIAICIGICACCIAIGGGCCACCCITIGCAAIAIGITG
                                                                                                                                                                                                                                                                          793 ACTTCCCGCCTCCTGATTCTGGTGCTCTTCTCAGCC-----ACTTTGAAATTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |||||||::: |||
185 SerAsnIleLeuAla-------GlyHisLeuLeuValIleLeuAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     255
58
45
108
39
                                                                                                                                                                                                                                                                                                              706 GCTATCCAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCA-
                                                                                                Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                US-09-768-781-2 (1-1389) x US-09-154-802-3 (1-255)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1225 GGCTTCATGCTCCTTTTCTTCCAGTACTTG 1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         239 ValPheThrMetLeuThrCysSerTyrlle 248
; TYPE: PRT
; ORGANISM: Homo sapiens
; PEATURE: -
; OTHER INFORMATION: 91006572
US-09-154-802-3
                                                                                       0.0311
95.50
41.20%
23.20%
3.76%
                                                                                                                             Best Local Similarity:
Query Match:
                                                                                                                  Percent Similarity:
                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
US-09-373-029-3
                                                                                        Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                             87
                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
```

Sequence 3, Application US/09373029 Patent No. 6036954 GENERAL INFORMATION:

```
988 ATCCTCTATGCTGGCATCAACTTCTTGCTGGTCA---GCTTTGCAGTTGAGGTTGGCA 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .045 GACAGAGATCTCGTCGACAAAGGGCAGAACTGGGGACATATGGGCCTGCACTATAGTGTG 1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1105 AGGTTGGTAGAATGTGATCATGGTCTTGGTTTTTAAGTTCTTTGGAGTGAAAGTGTTA 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 751 ---CIAGAAGTCCTCTGCATCACCATCTGGCGACATTGGAG------ATC 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                793 ACTICCCGCCTCCTGATICTGGTGCTCTTCTCAGCC-----ACTTTGAAATTGAAG 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       107 ValvalSerLeuValProTyrSerTyrAlaileAsnAlaGlnLeuMetTrpThrMetGly 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   937 GAGAAAAACTITCAGCCGGGIC-----GGCACICTGGIGGICCTGAITITCAGICACC 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48 GlyPheSerile---LeuAsnAspAsnAsnThrAsnIleLeuProThrArgTrpSerLeu 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586 CAGCTGACCTATCAGCTCTATGTGAGCCTGATCTCTGCAGAGGTTCCCCTGGGTAGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            877 ATCCTCTTTGAGCCCTGGATTAAGTTCTGGAGAAGTGGTGCCCAGATGCCCAATAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||| ||| ::::::||| ||| ::::
11 GlnPheThrThrArgValTyrPheGlyLeuSerSerGlyLeuIleAsnLeuAspThrMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      646 GTGCTAATGGTATTTTCCCTGGTATCTGTCACCTATGGGGCCACCCTTTGCAATATGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106 GCTATCCAGATCAAGTACGATGACTACAAGATTCGCCTTGGGCCA------
                                                                                                                                                                                                                                                                                                                                                                                                                            255
58
45
108
39
APPLICANT: Y. Tom Tang
APPLICANT: Corley, Neil C.
APPLICANT: Gougler, Karl J.
APPLICANT: Baugin, Mariah R.
TITLE OF INVENTION: ATP SYNTHASE SUBUNIT HOMOLOG
FILE REFERENCE: PF-0596 US
FURRENT APPLICATION NUMBER: US/09/373,029
CURRENT FILING DATE: 1999-08-11
EARLIER APPLICATION NUMBER: 09/154,802
EARLIER FILING DATE: 1998-09-17
NUMBER OF SEQ ID NOS: 3
SOFTWARE: PERL PROGram
                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 844 GCTGTGCCCTTCCTAGTGCTCAACTTCCTGATC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-768-781-2 (1-1389) x US-09-373-029-3 (1-255)
                                                                                                                                                                                                                                                                                                                                           ) OTHER INFORMATION: 91006572
US-09-373-029-3
                                                                                                                                                                                                                                                                                                                                                                                                                                               95.50
41.20%
23.20%
3.76%
                                                                                                                                                                                                                                           SEQ ID NO 3
LENGTH: 255
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                              FEATURE: -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

```
a
```

¹²²⁵ GGCTTCATGCTCCTTTTCTTCCAGTACTTG 1254
[1] ::|||
239 ValPheThrMetLeuThrCysSerTyrIle 248 È g

Search completed: April 1, 2003, 09:00:02 Job time : 34.5 secs